

HPLC Application

ID No.: 21960

EPA 554: Carbonyl Compounds in Drinking Water

Column: Kinetex® 5µm C18 100 Å, LC Column 150 x 4.6 mm, Ea

Dimensions: 150 x 4.6 mm ID

Order No: 00F-4601-E0

Elution Type: Gradient

Eluent A: Water

Eluent B: Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	50	50
	2	15	0	100
	3	20	0	100

Flow Rate: 2 mL/min

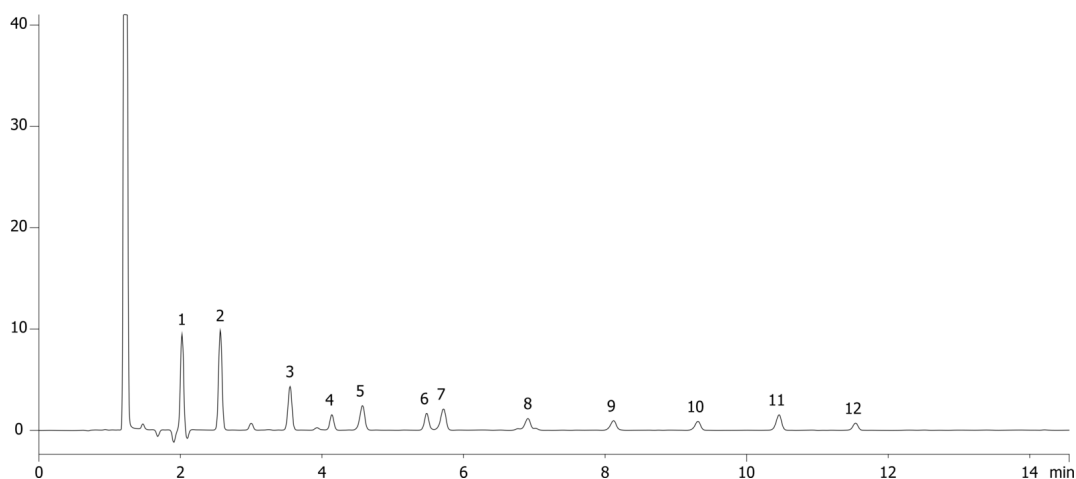
Col. Temp.: 30 °C

Detection: UV-Vis Abs.-Variable Wave.(UV) @ 360 nm (ambient)

21960



Products used in this application:



EPA 554: Carbonyl Compounds in Drinking Water

ANALYTES:

- 1 Formaldehyde
- 2 Acetaldehyde
- 3 Propanal
- 4 Crotonaldehyde
- 5 Butanal
- 6 Cyclohexanone
- 7 Pentanal
- 8 Hexanal
- 9 Heptanal
- 10 Octanal
- 11 Nonanal
- 12 Decanal



Sample Preparation Details

for HPLC Application ID No.: 21960

EPA 554: Carbonyl Compounds in Drinking Water

PRODUCT DESCRIPTION:

Strata® C18-E (55 µm, 70 Å), 500 mg / 6 mL, Tubes , 30/Pk

Order No.: 8B-S001-HCH

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 500 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Wash:

Dry:

Elute:

Final Prep and Analysis:

After elution Q.S. to 10 mL with ethanol before injection

Inject: 5 µL on HPLC UV-Vis Abs.-Variable Wave.(UV) @ 360 nm (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Formaldehyde	250				
2 Acetaldehyde	250				
3 Propanal	250				
4 Crotonaldehyde	250				
5 Butanal	250				
6 Cyclohexanone	250				
7 Pentanal	250				
8 Hexanal	250				
9 Heptanal	250				
10 Octanal	250				
11 Nonanal	250				
12 Decanal	250				

Note: This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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